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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/665,578

09/19/2003

Jeffrey Zhang

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HAYNES AND BOONE, LLP
901 Main Street
Suite 3100
Dallas, TX 75202

EXAMINER

WOODALL, NICHOLAS W

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3733

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02/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/665,578	Applicant(s) ZHANG ET AL.	
	Examiner Nicholas Woodall	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-10,18,19,24 and 28-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-10,18,19,24,28-30,33 and 36 is/are rejected.
- 7) ☒ Claim(s) 31,32,34 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment received on 11/29/2007.

Allowable Subject Matter

2. The indicated allowability of claim 29 is withdrawn in view of the newly discovered reference(s) to Adams (U.S. Patent 7,094,245). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3-5, 7, 8, 10, 18, 19, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Ouchi (U.S. Patent 6,206,904 B1).

Regarding claim 1, Ouchi discloses various embodiments, for example Figure 7, of a device comprising a distal portion and a proximal portion connected to the proximal portion (reference Figure 1 below). The distal portion is capable of transitioning between an insertion configuration and an extraction configuration, wherein the distal portion has a natural bias in the extraction configuration. The distal portion includes a first extraction prong including a first distal end extending along a longitudinal axis extending distally

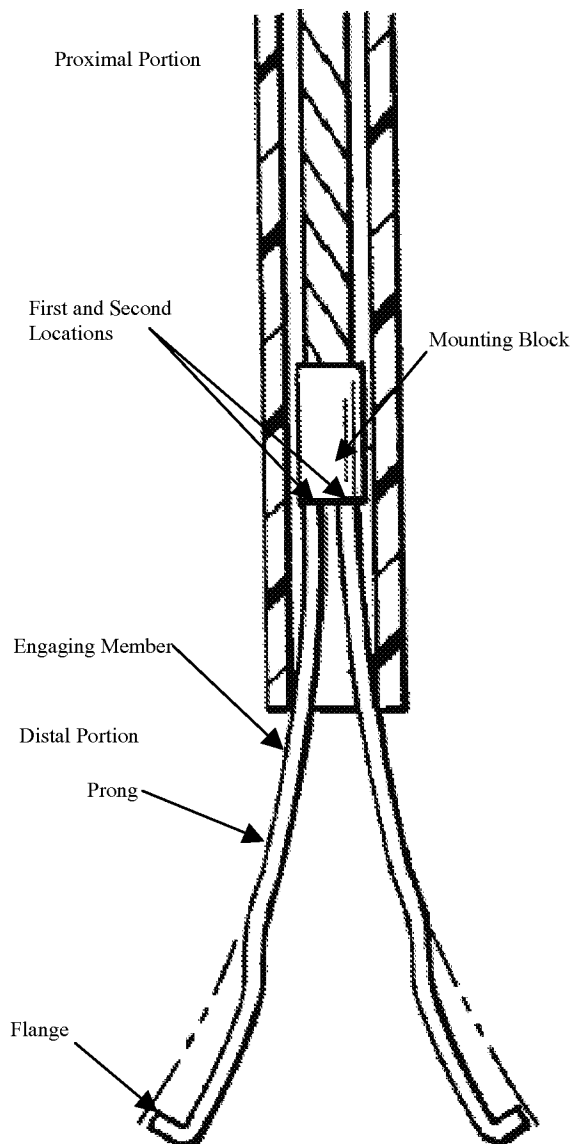
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from a first location and a second extraction prong including a second distal end extending along the longitudinal axis extending distally from a second location, wherein the first distal end and the second distal end are laterally spaced apart by a first width transverse to the longitudinal axis and the first and second locations are laterally spaced from each other by a second width, wherein the first width is substantially the same in the insertion configuration and in the extraction configuration (best seen in Figure 15 of the reference). Regarding claims 3 and 4, Ouchi discloses a device wherein the extraction prongs are manufactured from a flexible material such as stainless steel (column 4 lines 32-34). Regarding claim 5, one definition of a block from www.dictionary.com is a solid mass of wood, stone, etc., usually with one or more flat or approximately flat faces. Using this definition, Ouchi discloses a device wherein the distal portion further includes a mounting block, wherein the extension prongs extend distally from the mounting block. Regarding claims 7 and 8, Ouchi discloses a device wherein the extraction prong comprises a transverse flange with a hook-shaped configuration. Regarding claim 10, Ouchi discloses a device wherein the first and second extraction prongs are spaced apart, wherein the first extraction prong is capable of extending along a first side of the a device and the second extraction prong is capable of extending along a second opposing side of a device, wherein the prongs are extending generally parallel to each other. Regarding claim 18, Ouchi discloses a device with a distal portion comprising a transverse flange that is inherently capable of being used a method comprising the steps of inserting a surgical instrument having a distal portion able to transition from an insertion configuration to an extraction

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configuration, wherein the distal portion has a natural bias in the extraction configuration, the distal portion including a first extraction prong with a first distal end extending distally from a first location and a second extraction prong with a second distal end extending distally from a second location, wherein the first distal end and the second distal ends are laterally spaced apart by a first width and the first and second locations are laterally spaced apart from each other by a second width, positioning a first extraction prong adjacent a first lateral portion of an implant and positioning the second extraction prong adjacent an opposing lateral portion of an implant, inserting the first and second extraction prongs along the implant in the insertion configuration, transitioning the distal end to the extraction configuration while substantially maintaining the first width between the first distal end and the second distal end of the extraction prongs, engaging the distal portion with an implant, and exerting an extraction force to extract the implant. Regarding claim 19, Ouchi discloses a device that is inherently capable of being used in the method of claim 18 further comprising the step of displacing the distal portion along at least a portion of the implant, wherein the insertion configuration comprises partially deforming the distal portion and wherein the distal portion is returned to the natural bias after completion of the displacement. Regarding claim 24, Ouchi discloses a device wherein the extraction prongs have a natural bias that defines a maximum height of the extraction configuration.

Figure 1



5. Claims 1, 3, 5, 7- 9, 18, 19, 24, 28, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Reznik (U.S. Patent 4,393,872).

Regarding claim 1, Reznik discloses a device comprising a distal portion and a proximal portion connected to the proximal portion (reference Figure 2 below). The distal portion is capable of transitioning between an insertion configuration and an

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extraction configuration, wherein the distal portion has a natural bias in the extraction configuration. The distal portion includes a first extraction prong with a first distal end extending along a longitudinal axis extending distally from a first location and a second extraction prong with a second distal end extending along the longitudinal axis extending distally from a second location, wherein the first distal end and the second distal end are laterally spaced apart by a first width transverse to the longitudinal axis and the first and second locations are laterally spaced from each other by a second width, wherein the first width is substantially the same between the extraction and insertion configurations. Regarding claim 3, Reznik discloses a device wherein the first and second extraction prongs are comprised of a flexible material capable of being transferred from the insertion configuration to the extraction configuration. Regarding claim 5, one definition of a block from www.dictionary.com is a solid mass of wood, stone, etc., usually with one or more flat or approximately flat faces. Using this definition, Reznik discloses a device wherein the distal portion further includes a mounting block, wherein the extension prongs extend distally from the mounting block. Regarding claims 7 and 8, Reznik discloses a device wherein the extraction prong comprises a transverse flange with a hook-shaped configuration. Regarding claim 9, Reznik discloses an instrument further including a third extraction prong and a forth extraction prong extending distally adjacent the first and second extraction prongs, wherein at least two transverse flanges are connected to the first and second extraction prongs to extend in a first direction, and at least two opposing transverse flanges are connected to the third and forth extraction prongs to extend in an opposing direction

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generally opposite of the first direction (see Figure 3 below). Regarding claim 18, Reznik discloses a device with a distal portion comprising a transverse flange that is inherently capable of being used a method comprising the steps of inserting a surgical instrument having a distal portion able to transition from an insertion configuration to an extraction configuration, wherein the distal portion has a natural bias in the extraction configuration, the distal portion including a first extraction prong with a first distal end extending distally from a first location and a second extraction prong with a second distal end extending distally from a second location, wherein the first distal end and the second distal end are laterally spaced apart by a first width and the first and second locations are laterally spaced apart from each other by a second width, positioning a first extraction prong adjacent a first lateral portion of an implant and positioning the second extraction prong adjacent an opposing lateral portion of an implant, inserting the first and second extraction prongs along the implant in the insertion configuration, transitioning the distal end to the extraction configuration while substantially maintaining the first width, engaging the distal portion with an implant, and exerting an extraction force to extract the implant. Regarding claim 19, Reznik discloses a device that is inherently capable of being used in the method of claim 18 further comprising the step of displacing the distal portion along at least a portion of the implant, wherein the insertion configuration comprises partially deforming the distal portion and wherein the distal portion is returned to the natural bias after completion of the displacement. Regarding claim 24, Reznik discloses a device wherein the extraction prongs have a natural bias that defines a maximum height of the extraction configuration. Regarding

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claim 28, Reznik discloses a device comprising a distal portion and a proximal portion (see Figure 2 below). The distal portion further comprises a mounting block having a transverse slot and an extraction portion. The distal portion is capable of transitioning between an insertion configuration and an extraction configuration, wherein the distal portion has a natural bias in the extraction configuration. The distal portion includes a first extraction prong extending distally from a first location and a second extraction prong extending distally from a second location, wherein the first and second locations are laterally spaced from each other. The first extraction prong deflects between the extraction configuration and the insertion configuration along a first plane and the second extraction prong deflects between the extraction configuration and the insertion configuration along a second plane different than the first plane, wherein the planes are substantially parallel with each other. The proximal portion includes a substantially rigid shaft connected to the mounting member. The examiner is interpreting the movement of the prongs include components in both the x-direction and in the y-direction and the examiner believes that the x-direction components of both prongs are substantially parallel to each other. Regarding claim 33, Reznik discloses a device wherein each of the first and second extraction prongs includes a transverse flange, each pointing in generally the same direction.

Figure 2

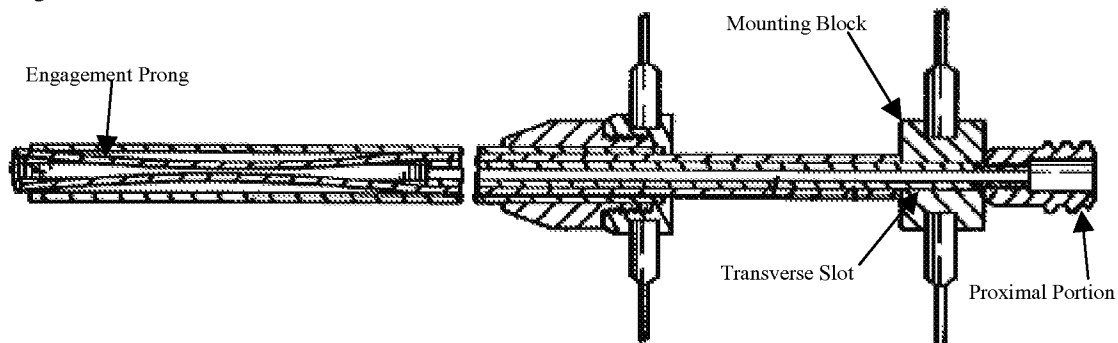
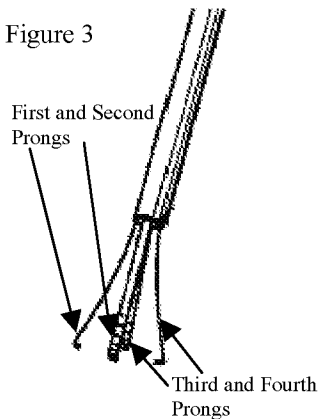


Figure 3

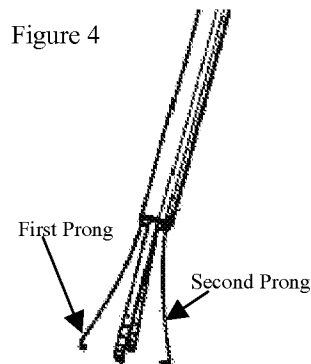


6. Claims 1, 3, 5, 7, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Reznik (U.S. Patent 4,393,872) as a second interpretation different from the one discussed above.

Regarding claim 1, Reznik discloses a device comprising a distal portion and a proximal portion connected to the proximal portion. The distal portion is capable of transitioning between an insertion configuration and an extraction configuration, wherein the distal portion has a natural bias in the extraction configuration. The distal portion includes a first extraction prong with a first distal end extending along a longitudinal axis extending distally from a first location and a second extraction prong with a second

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distal end extending along the longitudinal axis extending distally from a second location, wherein the first distal end and the second distal end are laterally spaced apart by a first width and the first and second locations are laterally spaced from each other by a second width, wherein the first width is substantially the same in the insertion and the extraction configurations. Regarding claim 3, Reznik discloses a device wherein the first and second extraction prongs are comprised of a flexible material capable of being transferred from the insertion configuration to the extraction configuration. Regarding claim 5, one definition of a block from www.dictionary.com is a solid mass of wood, stone, etc., usually with one or more flat or approximately flat faces. Using this definition, Reznik discloses a device wherein the distal portion further includes a mounting block, wherein the extension prongs extend distally from the mounting block. Regarding claims 7 and 8, Reznik discloses a device wherein the extraction prong comprises a transverse flange with a hook-shaped configuration. Regarding claim 10, Reznik discloses a device wherein the first and second extraction prongs are spaced apart, wherein the first extraction prong is capable of extending along a first side of the a device and the second extraction prong is capable of extending along a second opposing side of a device, wherein the prongs are extending generally parallel to each other (see Figure 4).



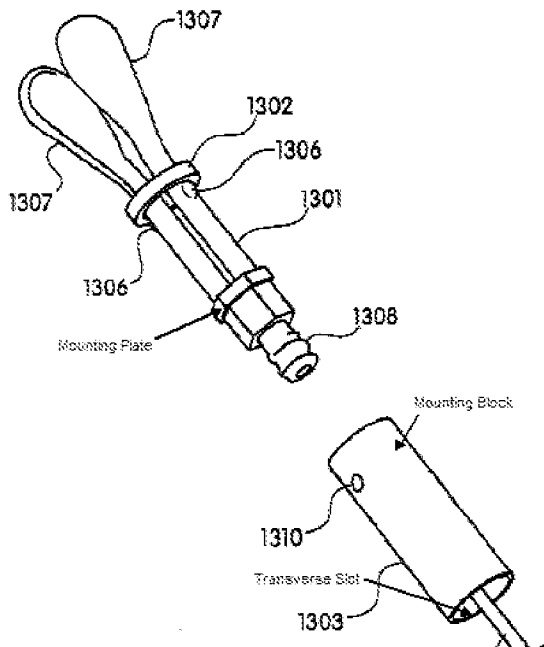
7. Claim 29 is rejected under 35 U.S.C. 102(e) as being anticipated by Adams (U.S. Patent 7,094,245).

Regarding claim 29, Adams discloses various embodiments of a device, for example Figure 13C, comprising a distal portion and a proximal portion (see Figure 5 below). The distal portion further comprises a mounting block (1303) having a transverse slot and an extraction portion. The distal portion is capable of transitioning between an insertion configuration and an extraction configuration, wherein the distal portion has a natural bias in the extraction configuration. The distal portion includes a first extraction prong (1307) extending distally from a first location and a second extraction prong (1307) extending distally from a second location, wherein the first and second locations are laterally spaced from each other. The first extraction prong deflects between the extraction configuration and the insertion configuration along a first plane and the second extraction prong deflects between the extraction configuration and the insertion configuration along a second plane different than the first plane, wherein the planes are substantially parallel with each other, wherein the first and second extraction prongs are integral with a mounting plate that is capable of being

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inserted into the transverse slot. The proximal portion includes a substantially rigid shaft (1305) connected to the mounting member.

Figure 5



Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouchi (U.S. Patent 6,206,904 B1).

Regarding claims 9 and 30, Ouchi discloses the invention as claimed except for the distal portion including a third engagement prong and a fourth engagement prong. It would have been obvious to one having ordinary skill in the art at the time the invention

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was made to manufacture the device of Ouchi further comprising a third extraction prong and a fourth extraction prong, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reznik (U.S. Patent 4,393,872).

Reznik discloses the invention as claimed except for the extraction prongs being comprised of stainless steel. It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the device of Reznik wherein the extraction prongs comprised stainless steel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

11. Claims 30 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams (U.S. Patent 7,094,245).

Regarding claim 30, Adams discloses the invention as claimed except for the device further comprising a third extraction prong and a fourth extraction prong. It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the device of Adams further comprising a third extraction prong and a fourth extraction prong, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claim 36, Adams discloses a device wherein the upper and lower implant engagement portions overlap each other in the extraction configuration.

Allowable Subject Matter

12. Claims 31, 32, 34, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

13. Applicant's arguments filed 11/29/2007 have been fully considered but they are not persuasive. The examiner has presented new grounds of rejection and withdrawn previously indicated allowability of claim 29 making this office action non-final.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for cited references the examiner felt were relevant to the application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Woodall whose telephone number is (571)272-5204. The examiner can normally be reached on Monday to Friday 8:00 to 5:30 EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas Woodall/
Examiner, Art Unit 3733

/Eduardo C. Robert/
Supervisory Patent Examiner, Art Unit 3733